Restoring the Hoosier Heartland

one farm at a time

June 2008 Flood

My Fellow Hoosiers,

The 2008 disasters in Indiana have been among the worst in our state's history, as nearly two-thirds of our 92 counties were declared Presidential disaster areas. FEMA has received over 20,000 applications for Individual Assistance (IA) and estimates over 1,500 project work sheets for Public Assistance (PA). In all, FEMA estimates that IA and PA will approach $375 million, and we believe that total damages to individual property, public infrastructure and agriculture will likely exceed $1.0 billion.

Across the agricultural sector, homesteads, barns, grain bins, equipment and livestock were in the path of the devastation, and nearly one million acres of rich farmland was swept away or piled high with sediment and debris. The land rehabilitation and restructuring of drainage systems and ditches could take years to restore and rebuild.

After the first days of the rains, I directed the Indiana State Department of Agriculture, through its Division of Soil Conservation, to take the lead in assessing damages, establishing farmers' needs and developing a recovery plan that assures farms receive personalized consultation and recovery guidance.

The following report demonstrates the substantial need and identifies further assistance needed to support the planning process for recovery. We are working closely with USDA to ensure farmers receive maximum financial assistance.

Mitch Daniels

Governor Mitch Daniels

overview

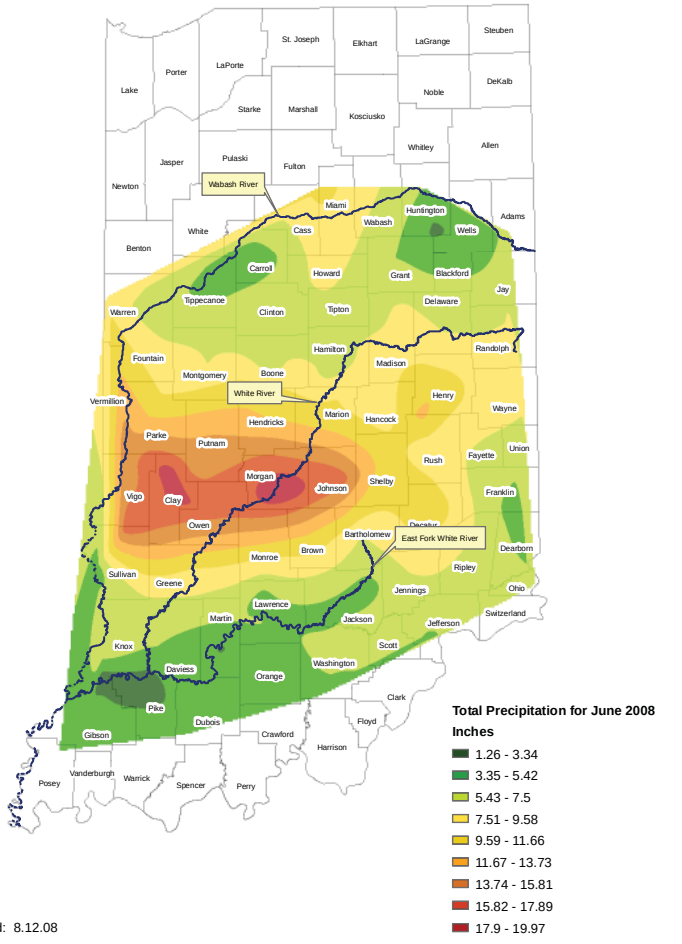
Overview

From the winter flooding to the spring tornadoes to the June 100-year record rainfall, 2008 will go down as one of the worst ever for Hoosiers. The June rainfalls began in the first week with a record 10 to 20 inches in various communities. This 24-hour event brought flooding to areas that have never flooded before. Hospitals, schools, bridges, roads, homes and farms were all affected and some without hope of repair. More than two-thirds of Indiana felt the impact of the rains. Much support will be needed to bring Indiana families and businesses back to their feet.

Indiana's farmland is a key area of damage and place for additional support. Some of the most productive land in Indiana has been left bare or littered with debris and sediment from upstream communities, forests and neighboring fields. Beginning on June 7, 2008, and continuing today, the Indiana State Department of Agriculture's (ISDA) Division of Soil Conservation (DSC) has been investing staff and resources in the urgent need for flood recovery and land repairs on Indiana's most productive asset, farmland. After 2,400 man-hours and 21,000 miles of surveying, and various on-farm assessments, the ISDA-DSC determined that more than $200M of damage has occurred to our farmland. Land rehabilitation and restructuring of drainage systems and ditches will in some cases take years to restore and rebuild. Indiana's burgeoning agriculture industry will command a serious commitment of planning, resources and staff to assure a quick recovery.

The vast majority of assistance will come from emergency USDA programs, which have covered less than $25M of the need to date. The state is working to ensure that farmers work closely with USDA to apply for assistance.

Total Precipitation for June 2008



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June rainfall

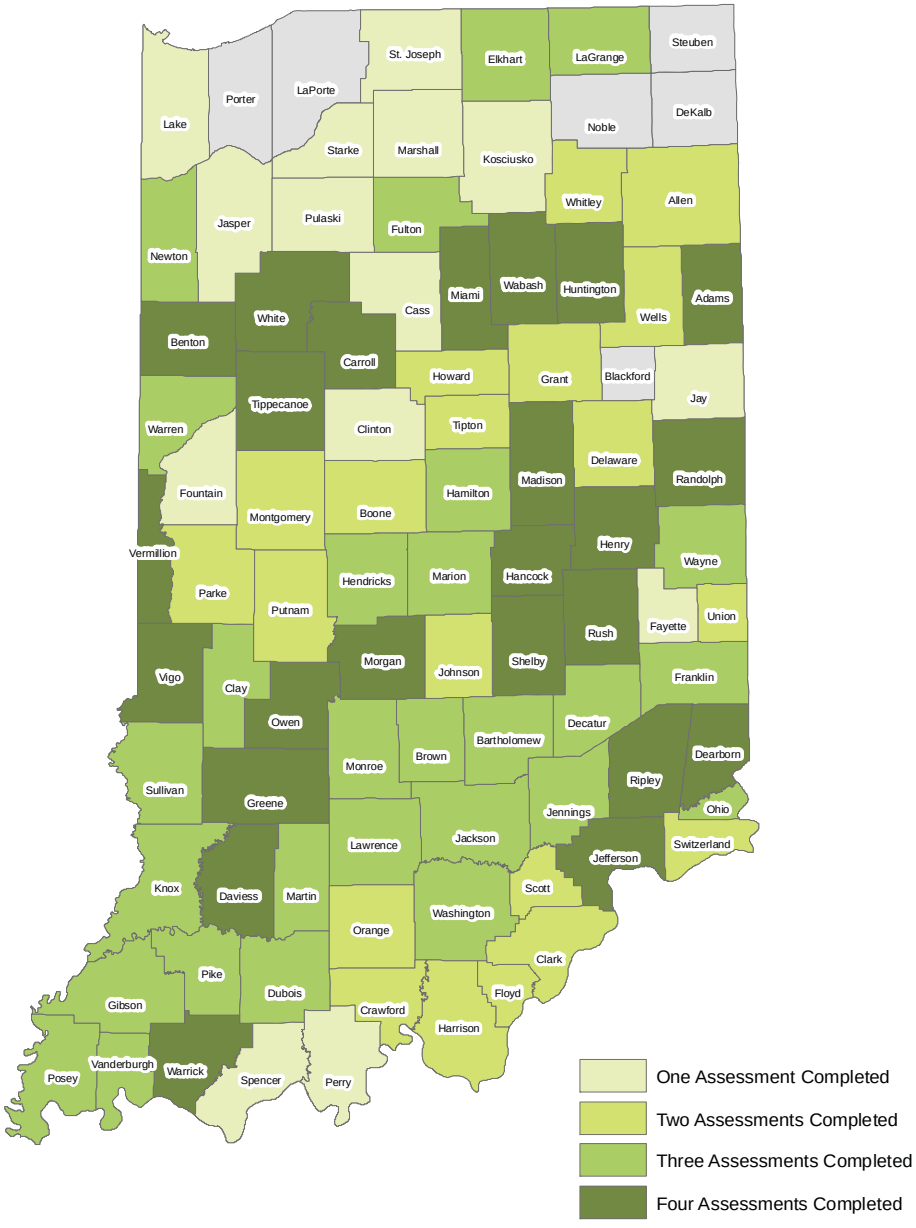
The "Total Precipitation for June 2008" map (left) shows the total rainfall that took place in June.

assessment

After the Rain

To enhance recovery planning and to quantify the extent of the damage, DSC began performing assessments early that ranged from broad public evaluations to on-farm evaluations. In all, four different assessment models were used and quantified a total need of $200M. Nearly all Indiana counties were evaluated with at least one and up to four of these assessment models (refer to “Damage Assessment Summary” map below).

Damage Assessment Summary



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assessment

The four types of assessment models used were as follows:

Assessment 1- Private Assessments and Assistance
Immediately following the rain event, ISDA Resource Specialists were assigned to contact five farmers in counties that were declared disaster counties to obtain information regarding how much damage had occurred on private lands and what kind of assistance was needed. Identical questions were asked to all farmers. These questions included information on building and equipment loss, crop loss, livestock loss, and overall damages and specific examples. Farmers were asked to give an estimate on percent loss and costs. With this information, ISDA began to determine some of the areas of most concern. This assessment was later expanded into Assessment 3: Five Farmer Assessment to further develop initial estimations.

Assessment 2- Public Assessments and Assistance
At the same time, ISDA District Support Specialists were asked to interview four public officials including the County Surveyor, the Purdue Extension Agriculture and Natural Resource Educator and two local Soil and Water Conservation District Supervisors. This assessment focused on the overall damage a county had experienced. Similar to the private assessments, identical questions were asked of these officials. Questions in this case were a bit broader, including asking about the top agricultural concerns in the county, the top public needs, and the overall impressions of damages to agricultural operations and crops. Interviewees were also encouraged to provide specific examples. This assessment gauged the significance of damage on a county level and helped identify which areas of the county were and weren't hit significantly. In addition, one concern that still loomed from this assessment was if farmers were actually contacting the public officials for help. It is believed that many were not.

assessment

Why so many counties?

The 87 disaster counties were not just declared federal disaster counties due to the June flood event. Other severe weather events had taken place around the state as well. Some of these events included: tornado and hail damage, wind damage and flooding that occurred in late winter/ early spring. Damages and events were reviewed by the USDA; this is the entity that makes the decision on whether to declare a county a disaster or not.

Assessment 3- Five Farmer Assessments

While Assessments 1 and 2 provided an understanding of some of the broad damage and initially estimated some of the individual damage throughout Indiana, more concrete information was needed to determine what kind of specific costs were associated with this damage. ISDA-DSC Resource Specialists once again contacted five farmers. This time they asked about specific costs associated with restoring agricultural land. Specific costs were assigned to specific practices based on Indiana Land Improvement Contractor Surveys (refer to Chart 1).

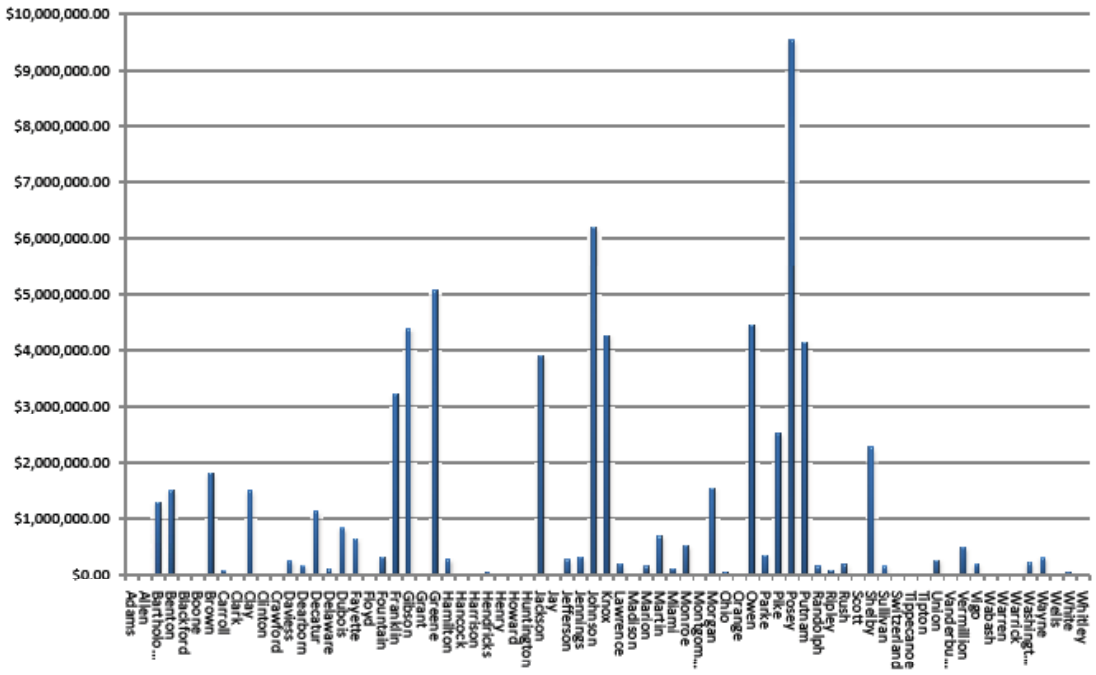
Chart 1: Estimated Cost (per unit) of Rehabilitation Practices*

Practice	Cost	Practice	Cost
Streambank Stabilization	$10 per square foot	Labor	$30 per hour
Regrading /Shaping	$2.50 per cubic yard	Fencing	$3.25 per linear foot
Compacted Earth Fill	$3.00 per cubic yard	Livestock Watering System Replacement -TANK	$100 per tank
Rock/Stone Placement for Stabilization	$40 per ton	Livestock Watering System Replacement -PIPELINE	$5.00 per foot
Seeding/ Revegetation	$1,000 per acre	Excavation and Removal	$5.00 per cubic yard
Clearing	$1,500 per acre	Grading/Spreading	$2.50 per cubic yard

** Costs from Indiana Land Improvement Contractor Surveys*

During this process, DSC staff assessed a total 487,460 acres of agricultural land representing approximately 4.2% of total agricultural lands. Farmer damage reports were utilized to get a sense of the potential agricultural damages throughout the county. This assessment identified over $62M in rehabilitation costs for those farmers interviewed alone (refer to Chart 2 below).

Chart 2: Five Farmer Assessment Damage Estimates



Assessment 4- Emergency Conservation Assessment Program

The State Soil Conservation Board (SSCB) requested that SWCDs participate in their Emergency Conservation Assessment Program (ECAP). The initial purpose of this program was to get a sense of how much money a county believed was needed for restoration of agricultural lands, and if money was allocated, how it would be spent in the county. ECAP forms received from districts varied in requests from no money to over $73M. A total of $236.9M was requested through ECAP. The 35 districts that received state allocations were later asked to revise their ECAP to reflect their recovery plans based off of state funding received (refer to ECAP on p. 15).

analysis

Isn't forested land ag land?

Forested lands are considered working ag lands, however, these lands have other resources and programs to tap into for disaster recovery.

Analysis of the four assessments broadly determined the severity and extent to which damage occurred and surfaced 35 counties as most severely damaged. Whether an entire county received major rainfall and flooding or several farmers reported severe damage, these counties seem to represent the hardest hit of the counties that are currently eligible for federal disaster programs.

Floodplain Analysis

These findings were then verified through a floodplain analysis to begin to quantify the amount of potential damage, project workload and resource needs. The analysis encompassed precipitation levels, total floodplain acres, total agricultural acres and total acres in the floodplain.

Precipitation

Precipitation was mapped from data acquired through the National Oceanic and Atmospheric Administration website (refer to "Total Precipitation for June 2008" map, p. 1) What was determined from this map and our other assessments is that many of the most severely damaged counties were not the counties that actually received high rainfall in June, but were the counties downstream. This told us that we needed to focus on floodplain areas, not the areas that actually received the rainfall.

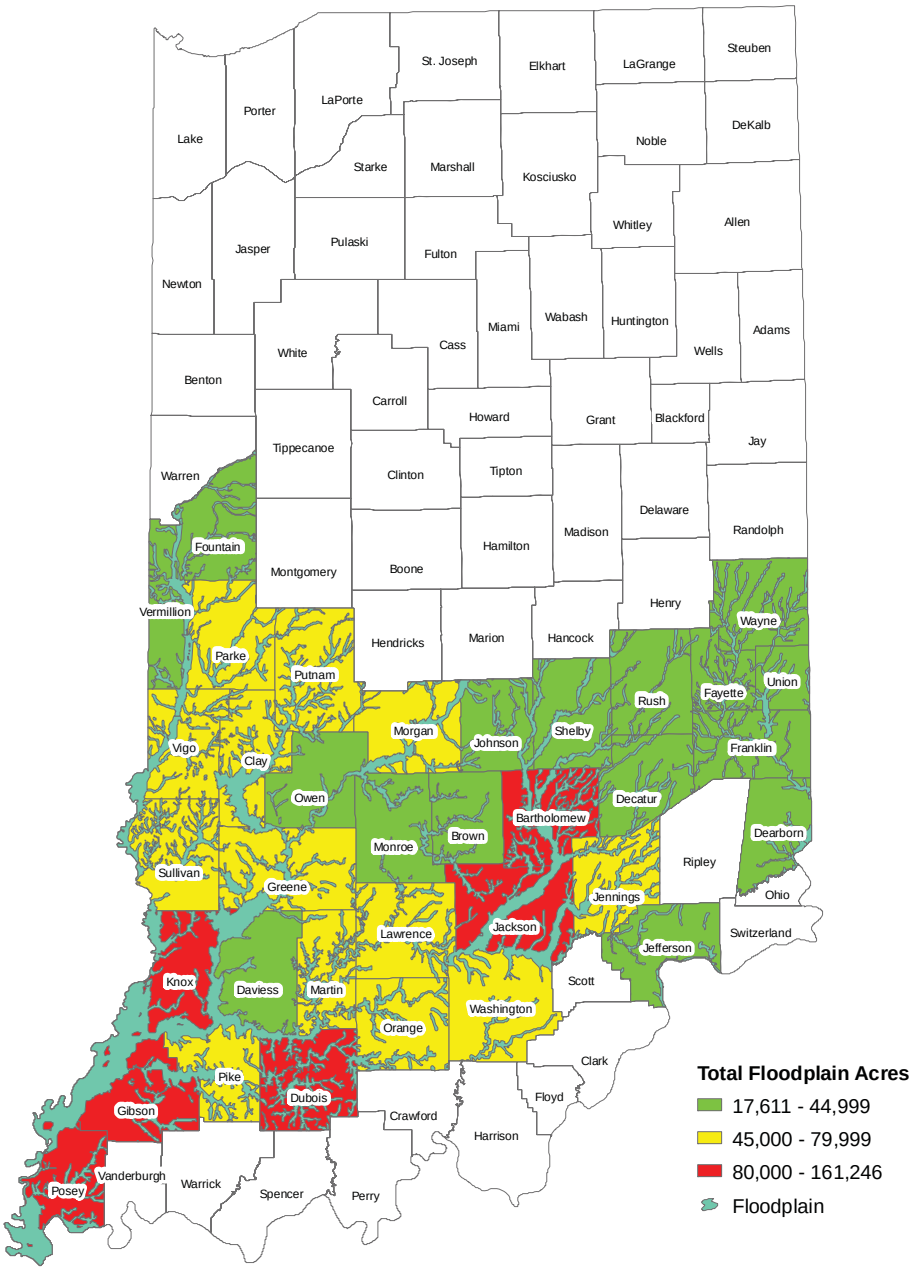
Total Floodplain Acres

Assuming that floodplain acres would likely be the first and most impacted in a county, floodplain data was critical in this analysis. Total floodplain acres were mapped and estimated from this map. The percent floodplain was then calculated by dividing the estimated floodplain by the total acres in a county.

Does this include crop damage?

Crop damage was not included in this analysis. The majority of crops are covered by insurance.

Total Floodplain Acres



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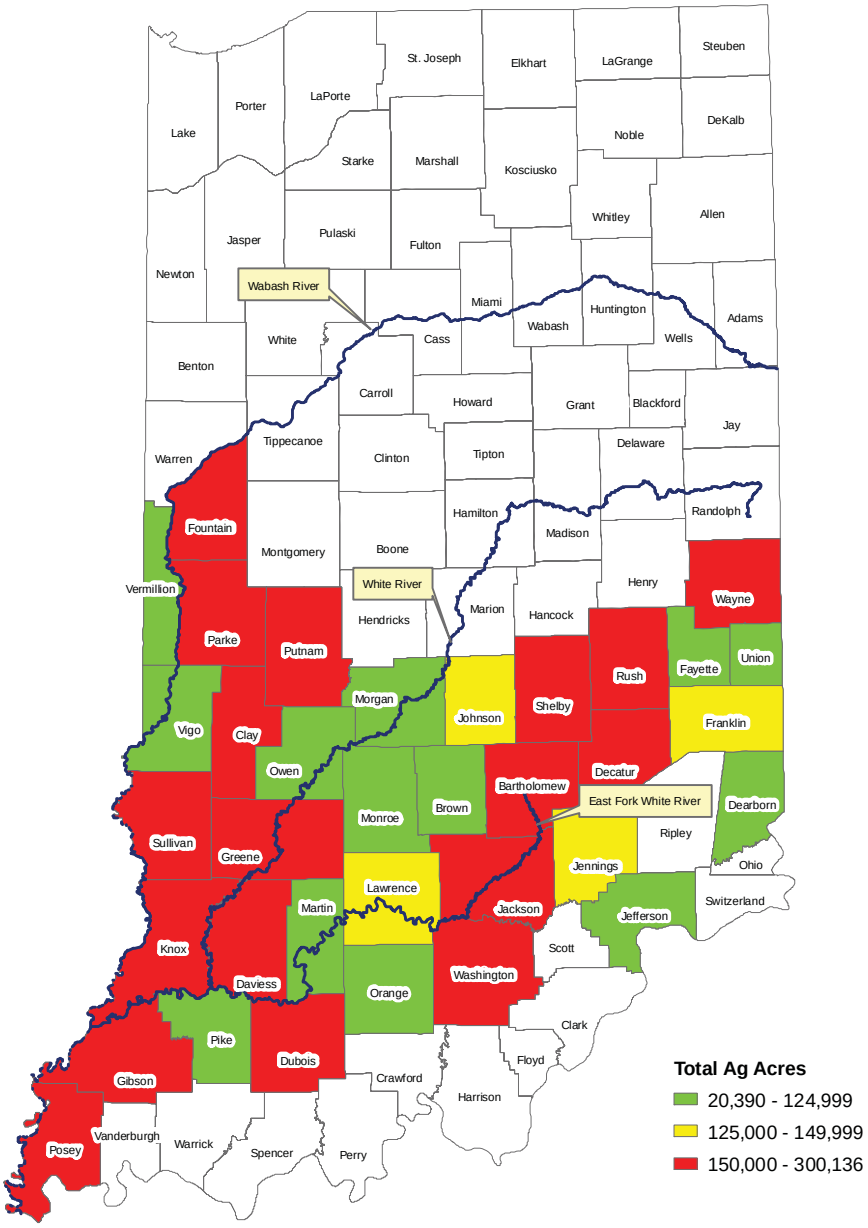
analysis

Total Agricultural Acres

Total Ag Acre data was acquired from the National Agricultural Statistics Service. This was the starting point in ISDA's floodplain assessment.

Total Ag Acres



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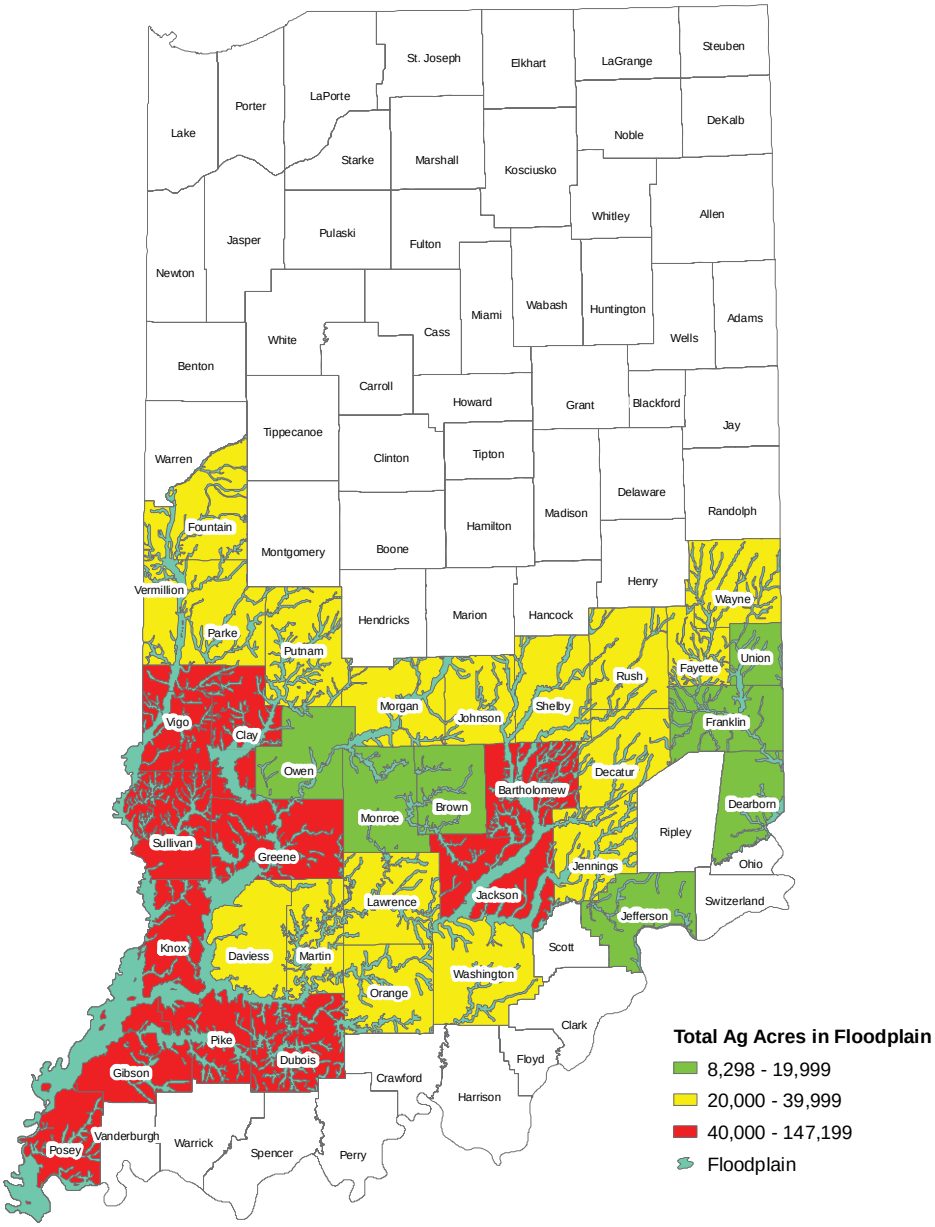
Total Ag Acres in Floodplain

Finally, the total agricultural acres in a floodplain were considered to confirm the severity of the flooding and rainfall impact reported in the four preceding assessments. This data was obtained by estimating the percent of ag land in the floodplain and multiplying this by total acres in the floodplain.

Total Ag Acres In Floodplain



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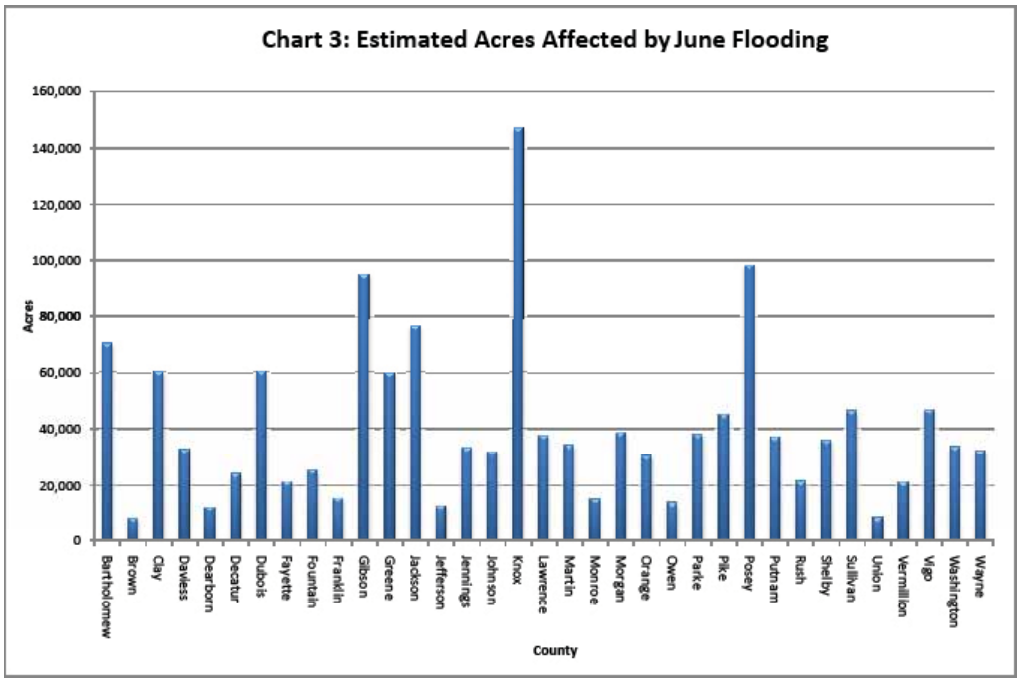
analysis

Why just ag land?

ISDA analyzed agricultural land in Indiana. We did not include other damages such as damages to dwellings and structures, or damages to urban areas; these types of damages are typically covered under a property owners insurance or other programs. ISDA's focus has been on damage not typically covered by insurance or other assistance programs, such as land restructuring and rehabilitation.

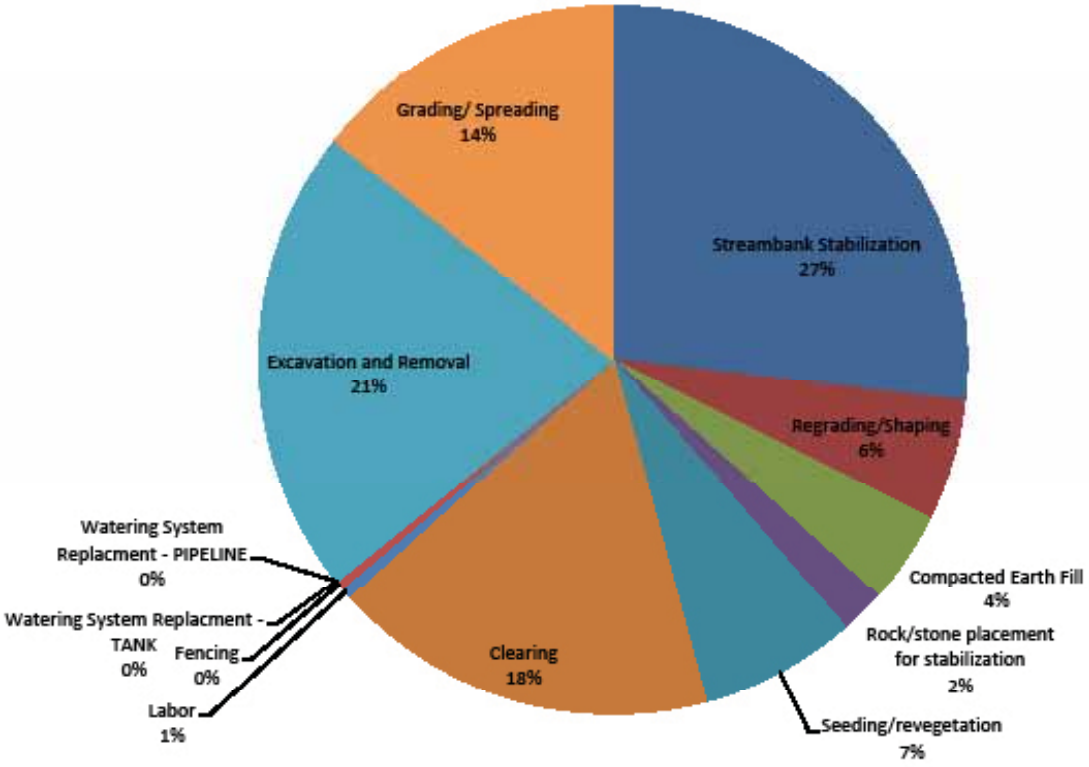


The floodplain analysis confirmed the findings of the four assessments: More than 1.4 M acres of rich farmland in 35 Hoosier counties are now in need of rehabilitation (refer to "Chart 3: Estimated Acres Affected by June Flooding" above).

Need:

Across the most severely hit 35 counties, as much as 1.4 M potential acres could be in need of some level of repairs. As SWCDs surveyed their counties and farmers, they estimated that 60% of those acres surveyed would need significant land grading and reshaping as well as sediment and debris removed. Long term challenges will exist with soil fertility and rebuilding organic matter.

Chart 4: Farmer Needs Assessment



Of the 383 farmers consulted, 234 showed significant to moderate to minor needs, over 60% in all. On average, those 234 farmers need more than $250,000 each to restore their lands to working conditions. A breakdown of those specific needs is shown above in “Chart 4: Farmer Needs Assessment”.

need

Hoosier landowners in the affected areas are truly in need of assistance. Many have been devastated with an average 60% of their land needing some type of repair. If Indiana's agriculture industry is to hit the ground running this coming spring, much work will need to be done and done quickly. The ISDA and the SSCB know their responsibilities and are working feverishly to address these needs, especially with planning and preliminary remediation of the most urgent challenges. Turning every rock and program to find the necessary funding and resources has consumed the past 90 days.

DSC staff has already invested over 2,400 hours of staff time with an investment of 21,000 miles of assessment work to reach out to individual counties and farmers garnering information, analysis and inspiration for the work that will need to be done.

Rehabilitation Costs

These efforts will be ramped up as harvest ends and more challenges are uncovered. A transition from triage to in-field, time consuming, recovery work will begin soon. There is no doubt that Indiana's conservation delivery system cannot and will not bear a fraction of this need, so ISDA is making plans.

Consulting, surveying, soil sampling, designing, planning and implementing will take an estimated $200 M for more staff, funding and equipment time (refer to Chart 5, p.14).

Funds needed for rehabilitation were determined by multiplying the acres eligible for flood assistance by $150 (estimated cost per acre for rehabilitation). ISDA then determined the percent of total damage per county based on funds needed per county divided by the total funds needed. From here, allocations were based on percent of total damage per county divided by the total allocation.

need

What's ISDA-DSC?

The Indiana State Department of Agriculture Division of Soil Conservation (ISDA-DSC) is a department in government that provides technical, financial and educational assistance needed to implement economically and environmentally compatible land and water stewardship decisions, practices and technologies.

Chart 5: Rehabilitation Costs by County

COUNTY	June Rainfall	TOTAL ACRES	AG ACRES	FLOOD PLAIN ACRES	% FLOOD PLAIN	AG ACRES in FLOOD	Percent Ag land in Floodplain	Acres Eligible for Flood Assistance	Total Funds for Rehabilitation	% of Total Damage
Knox	7.61	334,895	300,136	161,246	48.1%	147,199	91%	147,199	$22,079,850.00	10.3%
Posey		261440	191886	115,055	44.0%	98,376	86%	98,376	$14,756,400.00	6.9%
Gibson		312,822	210,989	115,987	37.1%	95,022	82%	95,022	$14,253,300.00	6.7%
Jackson	4.70	328,662	206,855	101,754	31.0%	76,225	75%	76,225	$11,433,750.00	5.4%
Bartholomew	7.45	261,772	160,568	91,012	34.8%	70,137	77%	70,137	$10,520,550.00	4.9%
Dubois		278,463	188972	82,228	29.5%	60,518	74%	60,518	$9,077,700.00	4.3%
Clay	18.93	230,557	151,590	74,215	32.2%	60,339	81%	60,339	$9,050,850.00	4.2%
Greene	9.05	349,160	170,534	75,266	21.6%	59,682	79%	59,682	$8,952,300.00	4.2%
Vigo	13.83	262,575	122,859	74,647	28.4%	46,710	63%	46,710	$7,006,500.00	3.3%
Sullivan	4.57	290,234	178,617	75,365	26.0%	46,562	62%	46,562	$6,984,300.00	3.3%
Pike		217,918	75,716	68,836	31.6%	45,190	66%	45,190	$6,778,500.00	3.2%
Morgan	20.11	261,907	111,609	49,835	19.0%	38,586	77%	38,586	$5,787,900.00	2.7%
Parke	12.14	284,655	164,743	60,731	21.3%	37,975	63%	37,975	$5,696,250.00	2.7%
Lawrence	5.36	289,116	147,295	51,832	17.9%	37,502	72%	37,502	$5,625,300.00	2.6%
Putnam	14.66	307,399	180,544	64,549	21.0%	37,208	58%	37,208	$5,581,200.00	2.6%
Shelby	10.50	264,323	199,904	42,771	16.2%	35,909	84%	35,909	$5,386,350.00	2.5%
Martin		217,717	63517	60,286	27.7%	34,042	56%	34,042	$5,106,300.00	2.4%
Washington		330,550	180,559	47,935	14.5%	33,561	70%	33,561	$5,034,150.00	2.4%
Jennings	7.39	242,031	142,609	59,910	24.8%	33,169	55%	33,169	$4,975,350.00	2.3%
Daviess	5.28	279,769	206,625	41,460	14.8%	32,417	78%	32,417	$4,862,550.00	2.3%
Wayne		258282	170724	43,471	16.8%	32,201	74%	32,201	$4,830,150.00	2.3%
Johnson	17.28	205,755	135,178	38,801	18.9%	31,704	82%	31,704	$4,755,600.00	2.2%
Orange		261,185	106190	51,550	19.7%	30,357	59%	30,357	$4,553,550.00	2.1%
Fountain		254,463	205412	38,015	14.9%	25,271	66%	25,271	$3,790,650.00	1.8%
Decatur	11.43	238,467	206,700	33,404	14.0%	23,836	71%	23,836	$3,575,400.00	1.7%
Rush	7.78	261,503	223,527	26,299	10.1%	21,513	82%	21,513	$3,226,950.00	1.5%
Vermillion	14.99	166,276	82,035	34,597	20.8%	21,181	61%	21,181	$3,177,150.00	1.5%
Fayette		137,683	106905	32,279	23.4%	21,161	66%	21,161	$3,174,150.00	1.5%
Franklin	0.00	250,381	139,464	37,479	15.0%	15,296	41%	15,296	$2,294,400.00	1.1%
Monroe	11.54	262,983	60,510	25,636	9.7%	14,825	58%	14,825	$2,223,750.00	1.0%
Owen	15.69	248,010	98,679	21,753	8.8%	13,722	63%	13,722	$2,058,300.00	1.0%
Jefferson		232,139	109,103	23,605	10.2%	12,499	53%	12,499	$1,874,850.00	0.9%
Dearborn		196,719	74,042	23,752	12.1%	11,980	50%	11,980	$1,797,000.00	0.8%
Union		105,760	85,129	17,611	16.7%	8,586	49%	8,586	$1,287,900.00	0.6%
Brown	11.52	202,483	20,390	18,282	9.0%	8,298	45%	8,298	$1,244,700.00	0.6%
Total								**1,418,759**	**$212,813,850.00**	

Recovery

Covering the cost of the recovery efforts will largely be a combination of private resources and USDA federal emergency conservation programs. To date, federal disaster assistance is only at $25 million or twelve percent (12%) of the estimated need.

Federal Assistance

Federal assistance is likely to come in two program areas:

Emergency Conservation Program (ECP)

The Emergency Conservation Program (ECP) funding was available to help landowners rehabilitate farmland damaged by natural disasters. In this case, up to 75% of the project paid for by the federal government. To qualify, the disaster must have created problems that would: impair or endanger the land; materially affect the land's productive capacity; represent unusual damage which, except for wind erosion, is not the type likely to recur frequently in the same area; and be so costly to repair that federal assistance is or will be required to return the land to productive agricultural use.

Emergency Watershed Program (EWP)

The Emergency Watershed Program (EWP) is in place to relieve hazards to life and property, including debris removal, stream protection, cover crops, conservation repair, and the purchase of flood plain easements. In this case, a landowner must have a local sponsor. Up to 75% of the project paid for by the federal government.

What's SSCB?

The State Soil Conservation Board (SSCB) provides guidance and coordination to the state's 92 Soil and Water Conservation Districts as they provide local leadership in the protection of Indiana's soil and water resources. Additionally, the SSCB administers the Clean Water Indiana Grants Program, a water quality related erosion and sediment reduction program.

The SSCB guided ISDA-DSC through the assessment process and voted to allocate funds to 35 of the hardest hit counties.

However, of the farmers interviewed by ISDA-DSC many had either not enrolled or did not communicate with the state. This reinforces the need to conduct further outreach and on-farm consulting to help insure these farmers are maximizing their participation.

Farmer Participation

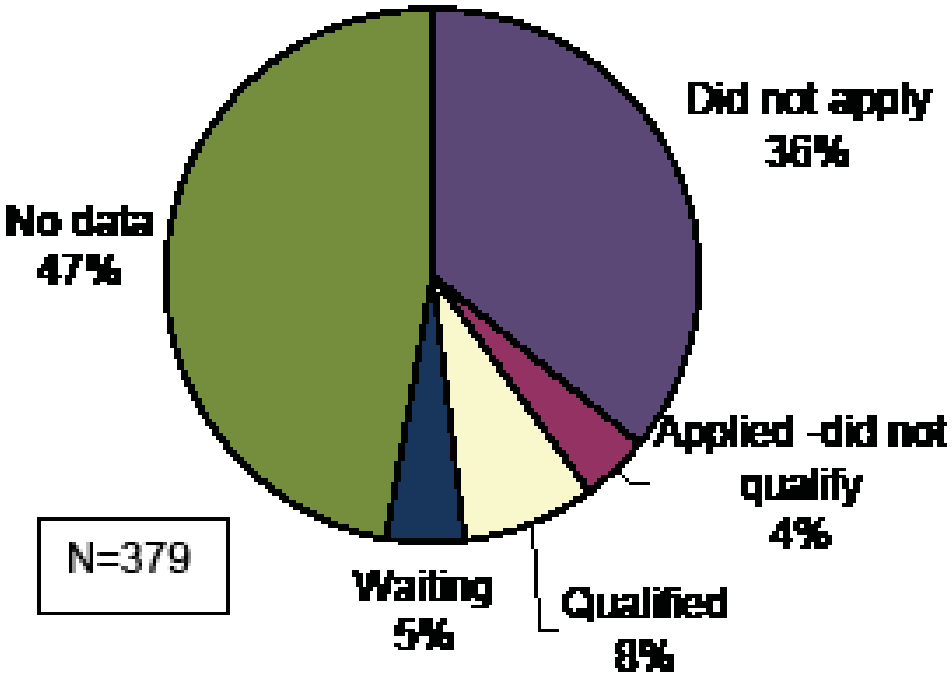
ISDA Resource Specialists contacted the original five farmers to determine if they had attempted to procure help from federal agencies. Many were not able to talk directly to those farmers, thus we have no data for 47% of our farmers at this time.

The graph below shows that 36% of farmers did not apply for federal funding, 4% applied and did not qualify, 8% applied and qualified, and 5% had applied but did not been informed on whether they would qualify yet.

It is well known that farmers are a resilient people. It is believed that many who suffered damage went forward and fixed damage to their fields before contacting state and federal agencies. Those who did proceed with work without contacting the agencies do not qualify for federal funding. Many of these farmers likely did not apply for federal funding, knowing that they would not qualify.

Through the State's ECAP programs, these farmers may have the opportunity to received funds through photographic evidence and receipts of work. In addition, most levees, unless a threat to life or structures, do not qualify for federal monies. ECAP may be able to assist those farmers who need to repair a levee to get back to farming.

Chart 6: Federal Program Data - 5 Farmers





State Assistance

ECAP

In an effort to close some of the funding gap and also entice farmers to explore other options, the SSCB has allocated $1.2M in preliminary funds to establish local programs and protocols through the 35 SWCDs to local officials and farmers as they receive funding and resources outside of the USDA traditional system. The SSCB utilized ECAP and the five farmer assessment to determine allocations. A few SWCDs did not to turn in the ECAP form, yet funds were still allocated to some of those counties. It was felt that through other assessments, significant damages had been discovered and that individual farmers who need help should not be penalized due to the SWCD failing to submit a form.

ECAP reassessments went to the 35 counties chosen to receive allocations. Those districts were asked to revise their ECAP to reflect the allocation given.

Conclusion

In conclusion, while Indiana landowners have endured this difficult time, they are still in great need of financial support and technical assistance. Farmers are eager to begin to restore their rich farmland so that a one-time season of tragedy does not continue for years to come.

The Indiana State Department of Agriculture, State Soil Conservation Board and Office of Disaster Recovery are dedicated to working with our Federal USDA partners to ensure that these hardworking Hoosier landowners have the assistance they need to recover from this disastrous event and begin to once again put food on the table at home and around the world.

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